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THE POTENTIAL FOR CONFLICT IN LATIN AMERICA: A CROSS-NATIONAL STUDY

by

Lieutenant Colonel Max G. Manwaring



✓ US ARMY WAR COLLEGE, CARLISLE BARRACKS, PA 17013

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⑥ THE POTENTIAL FOR CONFLICT IN LATIN AMERICA: A CROSS-NATIONAL STUDY.

INDIVIDUAL STUDY PROJECT

⑨ by ⑩

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MI-USAR

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⑪ 16 May 1980

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This paper has one primary and five secondary objectives. The major purpose is to examine the potential for conflict in Latin America--with particular emphasis on the Andean countries. The secondary objectives are to: (1) inject discipline and reasoned operational definitions into a generally "fuzzy" area of study, and to contribute to a theoretical-empirical elucidation of the contemporary power equation; (2) outline Latin American security fears; (3) measure the relative vulnerability of the various Latin American countries to overt and international systemic aggression; (4) determine the apparent direction in which the relative vulnerabilities of the countries of this region are moving; and, finally, (5) suggest some implications and recommendations for United States policy in the Hemisphere. Through the fusing of data with theory at this macro-level, one can better understand the realities of international conflict in the contemporary world; determine general patterns; and, hopefully establish an effective reference point in the formulation of broad policy.

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INTRODUCTION

In the two decades prior to October 1973, the earth was divided into a bipolar world with virtually all the nation-states seeking security provided by one or the other super-powers. International politics was characterized by a high degree of stability. In this context, conflict was relatively highly structured, and the so-called Cold War provided generally clear-cut issues, enemies, and friends. At the same time, power was defined in the traditional sense of the ability of a nation-state to secure, organize, and utilize human, raw material, and energy resources to support a conventional and/or nuclear force capable of exerting significant influence on the world scene.¹

Since the 1973 "Arab Oil Embargo", it has been increasingly clear that the world has become multi-polar; and, that the principal market economy countries are becoming more dependent on each other, and many less developed nations are becoming more and more closely tied to the international economy. In these terms, world politics are becoming less and less stable. The new environment of interdependence has effectively linked foreign policy and domestic politics. As recent energy and food shortages have demonstrated, no country can determine its own destiny as if it existed in a vacuum. What happens to and in Society A is affected by decisions of Government B. Thus, Government A has a clear responsibility to attempt to influence decisions and actions of Government B.² This is an intervention. It is an inescapable result of interdependence. An interdependent and multi-polar world may not necessarily be benign or congenial. It could be anything but that. It may be characterized as highly unstable. Conflict in this new environment is marked by a system of cross-cutting alliances and cleavages in a global context of limited chaos.³ In these terms, conflict need not always be a matter of Eastern or Western imperialists actively seeking

new spheres of influence. It may also be a situation in which regional powers become involved in regional conflicts attempting to protect what their controlling elites perceive to be their vital interests. The days of neatly structured conflict are past; and, the power equation has been drastically altered.

The implications for contemporary international politics and the resultant potential for conflict are worthy of serious thought. The beginnings of such considerations are suggested below.

Some recent work on the analysis of comparative international political violence suggests the direction of this paper.⁴ We propose to apply and expand on these and other ideas and methods, and apply them to a regional--Latin American--context. Consequently, this paper has one primary and five secondary objectives. The major purpose is to examine the potential for conflict in Latin America--with particular emphasis on the Andean countries. The secondary objectives are to: (1) inject discipline and reasoned operational definitions into a generally "fuzzy" area of study, and to contribute to a theoretical-empirical elucidation of the contemporary power equation; (2) outline Latin American security fears; (3) measure the relative vulnerability of the various Latin American countries to overt and international systemic aggression; (4) determine the apparent direction in which the relative vulnerabilities of the countries of this region are moving; and, finally, (5) suggest some implications and recommendations for United States policy in the Hemisphere. Through the fusing of data with theory at this macro-level, one can better understand the realities of international conflict in the contemporary world; determine general patterns; and, hopefully establish an effective reference point in the formulation of broad policy.

THE RESEARCH DESIGN

The question of conflict inevitably raises the problem of power in the world system. The trend toward interdependence and multi-polarity has given new significance to the military, economic, and political aspects of international conflict, and provides the basis for the need to reexamine the power equation.

Military Aspects of Power. In an interdependent world, in which the nation-state is compelled to not only be concerned but to attempt to influence decision-making in other countries, the middle range of conflict--subversion, interdiction, insurgency, proxy war, and other limited military actions--will be of major importance.⁵ Military force on a large scale operates on a nation-state. At the other end of the spectrum, threats to use some form of force also operate on the nation-state. The elements in the middle of the spectrum, however, operate both in and on a society; and, thus are in consonance with the concept of foreign policy influencing domestic politics in another country or world region. These are the types of warfare whose organization, management, and coordination will be of critical importance in an interdependent world. If a country is to be an effective power within this context of interdependence, it must enhance its ability to operate at the middle range of conflict. Consequently, a realistic power equation must reflect the ability of a country to wage the various forms of limited war. In this connection, the build-up of conventional military and naval forces, and air and sea lift capacity, gives a government the flexibility and ability to act and influence at the middle of the spectrum--rather than being confined to the syndrome of having to resort to nuclear warfare or passively sitting back and doing nothing.⁶

Economic Aspects of Power. The contemporary economic aspects of interdependence

revolve around the export and import of foods, manufactured goods, raw materials, and energy. Whether one likes it or not; or, whether one is prepared for it or not, it is quite obvious that a country can use whatever economic means it has to affect activities and decisions in areas outside its own boundaries considered to vital interest. Examples of such economic warfare would include: (1) the financing of illicit arms trade in order to alter--at least for a short period--regional strategic balances; (2) the direction of incitement, and/or support for insurgencies and local wars; (3) the creation of a destabilizing influence on the world monetary system and the economies of other nations thru embargos, tariffs, boycotts, devaluations, nationalizations, currency transfers, most-favored-nations treatment, and the freezing of assets. All these types of actions are the equivalent of bombings, invasions, amphibious assaults, counter-insurgency, etc. Thus, a new dimension has been added to the strategic significance of international intercourse of all kinds.

In order to determine a rough index of power as an interdependent world, one must also include as assessment of a nation's relative capacity for or vulnerability to international economic manipulations and control.⁷ Military power is no longer, by itself, the guarantor of political authority in the world.

Political Aspects of Power. Finally, a revised power equation must include the assessment of a country's will and capability to influence decisions in the politics of other countries.⁸ The capacity for such action--be it overt or covert--moral or immoral--is an essential element of a contemporary and relevant examination of power. Given anarchy as the controlling characteristic in the modern world, it is--simply--the survival of the fittest. Fitness not only includes military and economic strength; it requires the will and ability to use those strengths.

Before discussing the potential for this type of conflict in Latin America-- or anywhere else--it is important for scientific rigor and discipline of thought to (1) make assumptions explicit; (2) define and operationalize the terms used; and, (3) outline the methodology and means of analysis used in this cross-national inquiry into specific questions of comparative international political violence.

Assumptions. Only one assumption underlies this study. It is simply that the results of any capability or vulnerability analysis at the macro level must inevitably be uncertain. One can not be certain concerning the type of crisis that might be generated; what kind of criss-crossing domestic or foreign pressures might or might not exist in a given situation; the location and precise characteristics of a given military, economic or political theater of operations; the alliances available to an opponent; or, the amount of time that might be available for preparation for conflict. Therefore, there can be no precise answer to the question of "Capability or vulnerability to what?" or "In what context?" The best one can suggest is that we are analyzing the relative capability of a specific country to develop and withstand pressures across a broad spectrum of military, economic, and political conflict.

Definition and Operationalization of Terms. Two types of "systemic aggression" are examined in this study. First, is the expression of explicit military hostility. This type of aggression is exemplified by wars, threats of wars, and the general spectrum of overt military violence. The capability for this kind of conflict is operationalized and measured through our concept of "Relative Military Capability/Vulnerability." The second type of systemic aggression is the international manipulation of economies by nations toward others.⁹ Current theories of revolution and political violence have overlooked the extent to which a country can intentionally

effect preconditions leading to conflict in highly dependent less developed nations.¹⁰ This kind of aggression is exemplified by various governmental means which might be used to create economic disruption and distortion which can lead to various types of internal conflict.¹¹ The capability for this type of aggression is operationalized and measured through our notion of "Relative International Economic Capability/Vulnerability. The will or ability to employ any type of aggression is operationalized and measured through our concept of "Relative Political Strength." Finally, these three concepts are combined to form a new power equation; and, are operationalized and measured through our idea of "Relative State Strength."

a. Relative Military Capability/Vulnerability (RMC/V). This notion is more than a quantitative or qualitative evaluation of military forces-in-being. As a result, the elements that might constitute military power capabilities in the modern world are numerous.¹² However, in the interest of parsimony and manageability, it is necessary to determine which indicator-variables are the best. We chose to identify the variables most closely related to military power capability empirically, rather than determine them a priori. Consequently, we submitted sixteen variables to the SPSS Factor Analysis.¹³ Instead of a clear-cut, single military capability factor emerging, the principal components analysis indicated that military capability consists of the ability to sustain and increase military strength, the ability to project force over long distances, and actual military forces. Interestingly, Knorr's "putative" military capability concept is very similar.¹⁴

More specifically, the factor analysis indicates the following: First, the principal component we call Armed Forces Strength (actual military forces) is best explained by two indicators: (1) the number of armed forces personnel in a given country (AFT); and, (2) the theoretical capacity to produce 20 KT bombs per year (NUC).

These variables represent projectable power. Second, the factor identified as Reach (ability to project force over long distances) is also best explained by two indicator-variables: (1) the Merchant Marine (RE1); and, (2) the number of passengers flown on domestic airlines per year all over the world (RE2). Although the airlines and sea transport of a given country are not part of the regular military structure, they constitute an extremely important set of assets which could and would be used in any military exigency. Again, these indicators represent the capability to project power. Third, the component we call Infrastructure (the ability to sustain and increase armed forces strength and reach) is composed of two more variables: (1) defense expenditure per capita (DEP); and, (2) domestically manufactured arms exports (AEX). These indicators not only measure the ability of a state to sustain and increase armed forces strength and reach, but each one suggests something more. For example, the capacity to produce armaments for export can be channeled immediately for national requirements, provides an important dimension for projection and staying power in international security matters, and can contribute favorably to the balance of payments and general economic health and progress of a country. Defense expenditure per capita also suggests the level of commitment to the armed forces, as well as the scope of activity permitted.

b. Relative International Economic Capability/Vulnerability (RIEC/V). As with Relative Military Capability/Vulnerability, the indicators that might constitute this concept are numerous.¹⁵ Thus, again, in the interest of parsimony and manageability, it is necessary to determine which variables are the most useful. Consequently, we went through the same processes as for RMC/C submitting ten variables to the SPSS factor analysis. The indication was that RIEC/V consists

of two major factors: Trade Vulnerability; and, External Penetration. These results tend to agree substantially with work done by Robinson, Chase-Dunn, and others who have concerned themselves with economic dependence of "peripheral" countries on "core" nations.¹⁶

Specifically, the analysis indicates that, first, the principal component we call Trade Vulnerability is best explained by three variables: (1) exports (EXP); (2) imports (IMP); and, (3) debt dependence (DDP). These indicators represent the extent to which a country's economic activities are dependent on or circumscribed by actions in the external market. The factor identified as External Penetration is best explained by another three variables: (1) military equipment dependence (MED); (2) foreign currency reserves (INR); and, (3) bi-lateral and multi-lateral aid (BMC). These indicators suggest the degree to which one government is dependent for armaments, capital, or other needed resources on others. Together, these factors provide a measure of vulnerability to intentional external manipulation or control of a national economy.

c. Relative Political Strength/Vulnerability (RPS/V). Nation-states vary by the degree to which their governments have control over the activities of their own populations. The variable we have found to be most useful in measuring this aspect of national strength or vulnerability is the value of government revenues as a percentage of gross domestic product. This indicator measures the degree to which the total economic resources of a state's population are available to the state.¹⁷ In this connection, Organski and Kugler argue that will, per se, is not the vital difference that allows one country to prevail over another in international conflict. Rather, it is the capacity to effectively penetrate a society and extract resources from it. Revenue data provide good, strong indicators which can measure

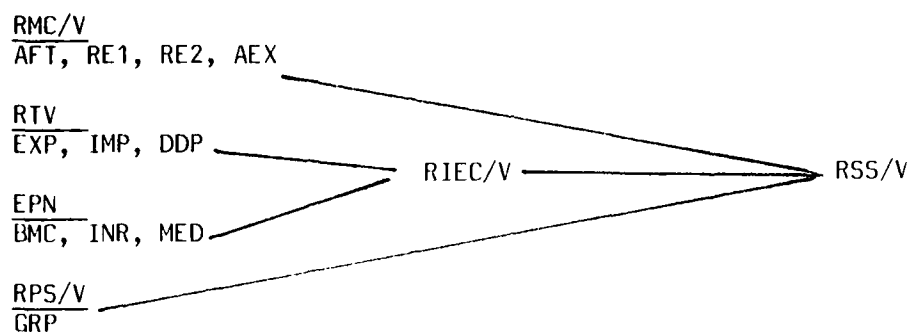
that capacity.¹⁸ Thus, government revenue data (GRP) suggests a level of ability to fulfill tasks imposed by the international environment in terms of a capability to administer, coordinate, and sustain political, economic, and military goals across the conflict spectrum in the contemporary world.

d. Relative State Strength/Vulnerability (RSS/V). State strength has three general dimensions. First, there is the extent to which a country has usable, projectable military strength in relation to others. Then, there is the degree to which a country can intentionally influence and manipulate the economies of other nations, and thus take advantage of preconditions for internal conflict. Finally, there is the level of control over a given society--which is the requisit to capability for generating the will to use power in international security affairs.

After determining the elements that best suggest relative military, economic, and political strength as separate entities, we submitted those variables to another SPSS factor analysis. The motive was to produce a single model which would depict the relative strength/vulnerability of a given Latin American country in terms of the types of conflict discussed above. Instead of three neatly compartmentalized factors emerging from the analysis depicting military, economic, and political aspects of power, the principal components analysis suggested that RSS/V consists of four major components--one military, one political, and two economic.

AFT, RE1, RE2, and AEX reemerged as important indicators of relative military strength. The NUC and DEP values were reduced to a level which we considered too low for inclusion in the model. Major elements of a general armed forces strength, reach, and infrastructure remained, however, and the basic RMC/V model continued in tact. In the economic area, the dichotomy of the RIEC/V model continued to assert itself. Trade Vulnerability and External Penetration emerged,

again, as separate factors. Finally, government revenue as a per cent of GDP continued to represent relative political strength (GRP). Consequently, the final model suggesting the totality of relative state capability/vulnerability is as follows:



Methodology. After the factor analysis compressed the original 26 variables into eleven which best explained a four component relative state strength/vulnerability model, it remained to devise a suitable technique for aggregating the data and producing a single index for a given point in time. As a preliminary step, each country's score on each variable was rescaled and expressed as a percent of the sum of the scores on that respective variable for all the nation-states examined. This was done in order to establish a single basis from which to measure and compare relative standings, and to eliminate the problem of measuring inflation. With the data rescaled, the indicators were combined into a single index.

Common sense and the factor analysis suggest some sort of weighting of the variables. Consequently, weights were assigned to the indicators on the basis of the factor loading scores that resulted from the factor analysis.¹⁹ These figures were squared and multiplied by 100. The resulting numbers were set equal to unity, and the total number of units was set at one million. Then, each country's RSS/V

score was computed according to the following equation:

$$RSS/V = P_{RMC}/V_w \times P_{RIEC}/V_w \times P_{RPS}/V_w$$

p=percent

w=adjusted weight

Finally, each country's RSS/V score was multiplied by 10 million to produce the final score which allows for ranking and categorization of the nations examined. Each factor was multiplied because multiplication implies non-substitutability. That is to say, a country with a relatively high level of armed forces strength, but little or no Trade Strength cannot be considered to have the capability to defend itself as well as a country which does. The same applies to a country with a high level of trade strength, but small military capability. Thus, a viable state capability requires relatively high scores in all four principal components. Accordingly, the model was applied quantitatively to identify and clarify the capabilities and vulnerabilities of the various Latin American states at a given point in time; and, to examine trends over time. The purpose of determining scores and ranking the various countries is an attempt to suggest relative position in the Andean region and in the wider Latin American arena. The purpose of the longitudinal analysis is simply to examine the relative direction a given country or set of countries, such as the Andean nations, appear to have been going over the past few years.

This type of analysis is not useful for micro-level investigations. It is not intended for the prediction of individual events, predicting a set of antagonists, or specific types of internal or external conflicts. Rather, it is useful for macro-level problems. It is concerned with relative standing, and patterns of behavior over a period of time; and, only suggests relative capability and

and vulnerability between one given country and another. This paper, then, is intended to be a narrow but intensive study which emphasizes the complexity of evolving realities in the contemporary world. As such, a general model is developed in order to measure, in relative terms, the capability of twenty Latin American countries to generate political, economic, and military conflict at any given point in time.

The results of the analysis will enable one to answer the following questions: "What is the potential for stability vs. instability in Latin America; or, within a particular region of Latin America?" "What is Country X's capability/vulnerability in relation to Country Y?" "In what direction are capabilities/vulnerabilities moving for a given country or set of countries?" "What are the general implications for United States policy in Latin America?"

The relevance of all this may be established by outlining the security problems and fears of the primary countries examined in this analysis.

SECURITY PROBLEMS AND FEARS IN LATIN AMERICA IN GENERAL AND THE ANDEAN COUNTRIES IN PARTICULAR

Conventional wisdom and official policy in the United States has it that the various Latin American nations have no security problems. They have, if any, only a very limited role in the defense of the Hemisphere; and, we know what is best for them. For example, the following testimony is instructive:

My decisions to make or not make an arms sale rest on underlying and invisible foreign policy considerations. During the early and mid-1960's we withheld the release of the F-5 aircraft to Latin America because we favored the application of the scarce resources in that region to schools and other social needs. We discovered that policy wasn't working, that Latin American nations resented our denying their separate sovereignties and treating them as a "region," and the more affluent of them simply elected to buy the allegedly needed aircraft from other sources.²⁰

As pointed out in his very thorough study of recent United States-Latin American relations, Kenneth Nolde argues that internal and regional security concerns of the various Latin American countries, along with the hemispheric security fears, are largely ignored by the United States. In this connection, the United States views the cooperation between Cuba and the Soviet Union as a threat to its own security and as a part of its world-wide confrontation with Communist imperialism. The threat is treated unilaterally by the United States and this has effectively excluded the Latin American nations from participating in any solution.²¹

In any case, the security fears of the Latin American states manifest themselves in much the same way as in any other area of the world. The governments of Latin America appear to be engaged in a continuing attempt to insure their national survival by planning for and resolving present and future security problems. These efforts are based on regional and international realities--as the Latin Americans perceive them.

Jack Child has listed some twenty-five potential or actual conflicts in Latin America.²² Nolde lists thirty-one possible areas of future conflict based on a compilation of the major issues that have been mentioned in the past ten years by the various nations in the media.²³ Gorman and Dominguez also discuss some of these issues in their separate outlines of the security problems of Latin America.²⁴ These listings tend to revolve around many territorial disputes that have been on-going in some cases since before independence. In addition to these kinds of security issues and fears, there are others which are also on-going and perceived to be as important, or more important, than the relatively obvious territorial disputes. They include: (1) the problem of insurgency; (2) problems arising from

the presently undefined and unenforcable "Law of the Sea;" (3) control of or influence with regard to the vital sea lanes of the South Atlantic Ocean and the so-called Atlantic Narrows, the sea lanes around South America, the sea lanes of the Caribbean, and the Panama Canal; and, (4) problems arising out of the nuclear proliferation issue.

The acquisition of modern, offensive weaponry on the part of Argentina, Brazil, and Peru;²⁵ and, Brazil's building of a naval and air base in the South Atlantic on the Island of Trinidad²⁶ are evidences of a lack of confidence in United States ability or interest in getting involved in any regional conflict, or supporting any given state in the event of any conflict. This kind of activity also makes it quite clear that the Latin Americans--especially the Brazilians--do not share the contention that they have no hemispheric or international defense role.²⁷

Nevertheless, of those disputes that can be specifically identified and isolated as dormant or actual conflicts, those that are considered most volatile involve the so-called Andean nations--Argentina, Bolivia, Chile, Ecuador, and Peru. These and other overt conflicts can be appreciated best by examining the internal and external security fears of the countries of the Andean region.

Argentina. A military junta overthrew President Isabel Peron in March 1976. It still rules on the basis of the argument that the military is the only national institution willing and able to deal with the chronic terrorist violence that threatens to destroy the fabric of Argentine society. The economic problems of the country are seen as directly linked to the overt violence of terrorism and insurgency, and the military have made it clear that their control of the political process is necessary to insure any kind of stability and national survival.

Boundary problems are also seen as potential sources of conflict. Probably the

most pressing external security problem is that of the Beagle Channel. The boundary between Argentina and Chile was established in this region in 1881. However, a disagreement over a cluster of three small islands (Lennox, Picon, and Nueva) at the Atlantic end of the Channel has continued until the present time. In 1902, a treaty of arbitration appointed the United Kingdom as Arbitor of the conflict, but arbitration failed and the problem remained dormant until 1971. At that time, an agreement was reached calling for an arbitration panel composed of five members of the International Court of Justice. Its decision could be either accepted or rejected by the United Kingdom, but not modified. The panel awarded the islands to Chile; the UK accepted the recommendation; and, the decision was promulgated in April 1977. Argentina rejected the arbitration, and in mid-1978 that country and Chile came very close to war. Subsequently, the Pope agreed to arbitrate the conflict and this is where the issue is at present.²⁸

The stakes in the Beagle Channel dispute include: (1) the largest concentration of krill in the world; (2) between 40-200 billion barrels of oil; (3) sovereignty over an increasingly strategic passage between the Atlantic and Pacific Oceans; and, (4) control over an area that will effect territorial claims in Antarctica, and into the South West Atlantic and the Falkland (Malvinas) Islands. Because of the economic and strategic implications of the Beagle Channel issue, it is not likely that the Pope will be allowed the luxury of another 75 year moratorium.

Argentina has been carrying out a number of military exercises along all its Chilean frontier in an apparent effort to suggest that the Beagle Channel area is not the only area that is in contention; and, therefore, Chile has much more to lose in the conflict than three small islands. More ominous is the fact that

Argentina has recently purchased some \$3 billion worth of military equipment to supplement the output of its rapidly growing armaments industry.²⁹ \$3 billion in virtually any context is a significant amount of weaponry. The implications of these purchases along with Argentine arms production are not lost on any Chilean.

The Argentine arms industry, the recent purchase of modern, highly lethal military equipment, and the nuclear development program which would theoretically enable that country to produce 25 20 KT weapons a year at the present time is also being noted in Brasilia.³⁰ Argentina and Brazil have been and continue to be the great rivals for influence and leadership in South America. Consequently, this rivalry now has the potential to become any type of conflict from mere rhetoric to nuclear exchange.

Finally, any type of domestic failure--economic and political--could tempt the junta to take advantage of a "nationalistic cause"--such as any of the Chilean or Brazilian problems--to distract popular attention. The situation in the southern cone of Latin America is far from stable.

Bolivia. Internally, Bolivia continues to suffer from a high level of civil unrest and factionalism within the military. Civil unrest could lead to an active insurgency problem. Division in the military could lead to civil war. As in Argentina and elsewhere in Latin America, the economy is considered the basis for whatever potential internal conflict that may arise. Furthermore, internal security fears are hard to separate from the external problems in that internal civil unrest and insurgency could easily generate a good deal of outside indirect or direct intervention. Stability is seen as the key to survival for Bolivia. As much as it would like to re-acquire an outlet to the Pacific Ocean, Bolivia's political,

economic, and military weakness precludes its forcing a settlement of the issue. Any resolution to the problem of Bolivian access to the sea must come from an agreement with Chile and Peru, and those countries do not appear, in fact, to be very supportive of the idea. It is argued that under the terms of a 1904 treaty and the subsequent Chilean construction of a railroad between LaPaz and the Pacific port of Arica: (1) Bolivia does have access to the sea, and, (2) Bolivia recognizes Chilean sovereignty in the area. A complicated factor, however, is that the railroad is built on land taken from Peru in the 1879 War of the Pacific. Thus, Bolivia is acutely aware that, among other things, it could be caught up in a confrontation between its neighbors.³¹ If all this were not enough, Bolivia also has frontier encroachment problems with Argentina and Brazil. The security concerns of Bolivia are real and great.

Chile. The Chilean military junta which took control of the country from Salvador Allende has gained the animosity of the Revolutionary Socialist world for having deposed one of their brothers; and, has earned the ill-will of the United States and other nations for its violations of human rights in repressing the opposition. The country is isolated from the international community and the preconditions for violence and internal conflict are in existence. As a result, Chile is extremely vulnerable to any kind of external political, economic, or military activity. The military government of General Pinochet has been quite successful in improving the economy and reducing civil unrest and insurgency. However, it is feared that any disruption and possible reintroduction of insurgency would lead to an unacceptable level of internal conflict. Here, as in Bolivia, the junta sees stability as the prime requisite to national development and national security.

The external concerns of Chile revolve around the numerous border problems that have reemerged in the past few years. First, the Beagle Channel controversy has the greatest potential for external conflict. The junta has been very judicious in all its dealings with Argentina in an attempt to avoid giving that country any cause to enter into hostilities. Second, Peru presents a major security problem for Chile. The hostility between the two countries goes back at least as far as the War of the Pacific. Chile emerged from this conflict completely victorious with Peru ceding permanent control of the province of Tarapaca; and, control over the provinces of Arica and Tacna for a period of ten years.³² After ten years there was to be a plebiscite, but it was never held. Chile returned Tacna in 1929, but kept Arica. The Peruvians have never forgotten the loss of Arica and Tarapaca, and that country's vast military build-up in the past ten years has improved its capability to the point where some people feel it now has the ability to vindicate Peru's "national honor."

The Bolivian territory taken as a result of the War of the Pacific constitutes another possible point of conflict; but, as mentioned above, Bolivia does not have the capability to unilaterally suggest a military solution with regard to the Atacama Desert.

Chile's complex external security problems are exacerbated by fears inherent in their dependence on external money markets and general vulnerability to economic pressures from abroad. At the same time, there is a good deal of concern that any kind of overt or covert action on the part of any other international actor or set of actors would not bring any aid from the international community. Nevertheless, Chile's current internal security problems appear to be relatively small as its economy continues to strengthen.

Ecuador. Ecuador's primary security fears revolve around the Peruvian military buildup, and the increasing rise in the civil unrest which dates back to July 1979 and the transition from military rule to civilian government. Much of the internal problem can be traced to the relaxation of the harsh internal stability measures employed by the military government. The resumption of full-scale political activity by all the political groups pursuing interests that have been frustrated for years is easily translated into violence. The problem for the civilian regime and the military is to keep the situation from erupting into a prolonged period of general internal conflict. The Ecuadorian economy has not been doing well in the past few years; thus, the probability of internal conflict is compounded.

Externally, Ecuador's security fears center around its ongoing dispute with Peru concerning territory lost in the so-called Marañon Dispute. In 1941 Peru occupied some disputed land and a great deal of undisputed territory. The Peruvians stayed until 1942 when Ecuador agreed to recognize claims to 500 square miles in Tumby, 4,000 square miles in Selva, and 70,000-100,000 square miles in Amazon. The lost lands along the Marañon River in the Amazon have deprived Ecuador of oil which has been discovered in the area--as well as a viable outlet to the Atlantic Ocean.³³ The result has been a continuous war of words, and Ecuador has brought the question before each full council of the Organization of American States since 1942. Ecuador fears that Peru, with its enhanced military capability, will use that power to take even more territory.

The economic realities of the Ecuadorian situation have limited the military to a role concentrating on combating possible insurgency and a somewhat limited border control.

Peru. In 1968 the military took control of the Peruvian government and through far reaching social and economic programs eliminated much political instability, labor unrest, social unrest, terrorism, and organized insurgency. At the same time, the new military government initiated a very ambitious program of arms purchases from the Soviet Union. This amounted to over \$2 billion in the period between 1968 and 1977.³⁴ The economy was unable to absorb the strain of the heavy spending for social programs as well as armaments. Consequently, another military junta under the control of General Francisco Morales Bermudez slowed the revolutionary process and began an austerity program which has resulted in renewed civil disorder and organized guerilla activities.

The basic economic problem that Peru faces is that of debt servicing made acute by the huge arms purchases over the past few years. This and other economic problems have lead to increased internal security problems at a time when civilians are about to resume control of government. The military and civilian communities seem to be concerned about the possibility of the same thing happening in Peru as has happened in Ecuador. It is not likely that the military will allow the level of violence to increase substantially without some sort of intervention which could, in turn, generate even more internal conflict.

In one sense, Peru's security fears are not unlike those of other nations in Latin America in general and the Andean region on particular. There are the possibilities of conflict over borders, social unrest, and economic problems that are or can be catalysts for serious internal conflict. In another sense, despite the problems with Ecuador, Bolivia, and Chile already mentioned and some problems with Brazilian interest in Bolivia, Peru's fears of external conflict have got to be the least of any of the Andean states. As a result of the arms purchases noted

above, Peru has one of the most powerful military forces in Latin America. Thus, external invasion is extremely unlikely. On the other hand, there is great concern among Peru's neighbors concerning its motives for creating such a large and modern force.

The territorial disputes outlined above are hot and passionate issues within the affected nations. Any of these conflicts might easily erupt into open hostilities. The fact that none have done so is either a tribute to restraint worthy of Angels, or a perception that a balancing force might intervene to maintain peace and stability in the region.

As important as various types of territorial disputes are in terms of potential conflict, internal instability presents a probably more serious set of problems. This type of conflict is more subtle and is not well understood. What is becoming more and more clear with greater experience is that: (1) a small but well organized and disciplined group of "revolutionaries" can take control of a society despite the efforts of a large and well armed military; and, (2) this can be accomplished after a long period of low-intensity conflict which the society, the government, and various friendly nations do not recognize as any kind of "crisis." It is also clear that the preconditions for this type of conflict exist to one degree or another in all of the countries of Latin America. Add the capability of an external actor to intentionally manipulate, disrupt, and control the preconditions for violence, and the probability for external vs. international conflict shrinks to insignificance in comparison.³⁵

As a result, all the governments of Latin America view internal conflict as their primary security problem. The secondary security concern deals with the territorial disputes that are, in fact, volatile issues. Lastly, a few latin

American states contend that in the contemporary international reality, they have at least a legitimate hemispheric defense role.³⁶

THE POTENTIAL FOR CONFLICT IN LATIN AMERICA AND THE ANDES

General. At first glance it appears that the Andean countries of Argentina, Bolivia, Chile, Ecuador, and Peru occupy a comfortable position in the top half of the sample 20 Latin American countries. Only giant Brazil and oil rich Venezuela rank higher than Argentina, Chile, and Peru.³⁷ (See: Table 1). In some contrast to the entire Latin American arena, the analysis places Argentina as kind of a "Super Power" within the Andean region.

A closer examination of the data suggests there are large gaps between the various clusters of countries. Ranking, per se, means very little in this kind of analysis. What is important is the number of points one nation has as opposed to another. For example, Brazil has 2,206 points to Argentina's 176. Consequently, even though Argentina is ranked number three of twenty countries examined, the gulf between it and Brazil is significantly large. At the same time, the gap between Argentina, and Chile and Peru; and, the gap between the latter two states and Ecuador and Bolivia is also quite large. Even though Ecuador and Bolivia rank higher than any of the Caribbean, Central American, or the smaller South American countries, they are only slightly ahead of the cluster of states which have less than five points. Thus, it appears that the Andean states are represented in all the clusters of Latin American countries, except the very top and the very bottom.

The longitudinal part of the analysis reveals, first, that recent Brazilian governments have been steadily and significantly increasing that country's capa-

bilities. In 1968, Argentina and Brazil were closely ranked with 258 and 224 points respectively. The data show that ten years later Brazil's total points increased from 258 to 2,206, while Argentina's points decreased from 224 to 176. The gap is significant, and it is probably insurmountable. The implication is clear--Brazil is the "Super Power" of Latin America. As such, it has the capability of playing a controlling role in the security affairs of any country in the region--including Argentina. Second, the data show that the gap between Chile and Peru has narrowed somewhat over the past ten years. Peru has made a considerable effort to enhance its relative military standing; however, Chile's economic successes have--despite its relatively weak military position--kept that country in an overall position somewhat stronger than that of Peru. Third, the trend data indicate that while eleven of the twenty countries examined increased their relative state strength over the 1968-1977 period, nine countries have become even more vulnerable to external and foreign induced internal conflict. These countries are: Argentina, Colombia, Costa Rica, Dominican Republic, Haiti, Mexico, Panama, Paraguay, and Uruguay. (See: Table 2).

The decrease in capability and corresponding increase in vulnerability is most notable for Mexico (149 to 13). Perhaps newly acquired oil revenues will rescue Mexico from its perilous descent into a lucrative target area for those international actors who can and will exploit such demonstrated weakness.³⁸ In any case, Mexico is now much more closely related--in overall power terms--to such countries as Honduras, Guatemala, and El Salvador than it is to those nations with which it is usually associated. Oil or not, Mexico has serious problems and bears watching. At the same time, at least nineteen of the twenty of these Latin American countries are vulnerable in one degree or another to any type of potential

conflict. Even Brazil, with its seemingly astronomical two-thousand plus points, would not be completely immune to outside pressures.

Finally, within the Andean group, Argentina is the major power. Chile is comparatively weak and could in no way match either the economic or military strength of Argentina--even though that country has been declining in relative strength. (See: Chart 1). As noted above, Chile and Peru remain close rivals. Although the gap has narrowed between those two countries, the lines have not yet crossed and Chile remains the dominant member of that duo. Even if Peru and Bolivia were to combine efforts against Chile, Chile is still the stronger entity. Only Argentina has the capability to dominate Chile. Peru has the capability to dominate Ecuador, but cannot ignore a possible Chile-Ecuador axis--as Argentina cannot ignore a possible Brazilian involvement as a balancer in any conflict with Chile. Because of the Brazilian capability to project military and economic power, any conflict or solution to a conflict involving Argentina, Bolivia, Chile, Ecuador, and/or Peru must necessarily include some Brazilian input.

Relative Military Capability/Vulnerability, (RMC/V). This factor is composed of four indicators (AFT, RE1, RE2, and AEX) which suggest the capability to sustain and project effective military power. AFT records the number of soldiers, sailors, and airmen that are immediately available for engaging in hostilities. War, regardless of level of intensity, must be fought with people. Territory, airspace, and critical sea lanes must be physically controlled. As a rule, the more individuals in the armed forces of a given state, the better that state's ability to do these things in relation to that of another.

The size, and even the quality, of an armed force may have little significance in world regional, or internal affairs without the capability of projecting that

force to the area of conflict or possible conflict. The indicators we label as RE1 and RE2 are intended to measure a country's ability to project power. In this connection, we examine the airlift capacity of a nation-state in terms of numbers of passengers carried on domestic and international routes in a given year by its airlines. We also examine the capacity of a country to move bulk cargo in terms of the tonnage of its merchant marine. Civil air and sea transport are used as indicators of reach simply because they are considered an integral part of the military infrastructure of virtually all the countries of the world, and would be employed to supplement military and naval capacity to move and support troops and equipment. Moreover, small numbers of aircraft and troops can be deployed to most parts of the world within hours of notification, given a secure airbase and adequate fuel. The sustainment, however, of even a small force over a period of time is complex and cumbersome. The most readily identifiable means of accomplishing the tasks associated with projection and sustainment of power over long distances is airlift and sealift. Again, the greater the capacity, the greater the relative advantage.

The capability to produce arms for export (AEX) provides an important asset in the projection of influence in a world that is buying arms at record rates.³⁹ In addition, should the need arise, this capability can be immediately channeled to national requirements. It would also be an important asset for projection and staying power in international security matters. On the other hand, if a country must import war materials, as well as spare parts for old equipment and arms, it is dependent on the exporter or exporters and cannot project or sustain itself on the international scene any longer than its inventory and supplier will allow. Clearly, the larger the quantity of a nation's exports of nationally made armaments,

the less dependent it is. In these terms, it can enjoy an independence of action that is absolutely necessary to exploit military capability to the national advantage.

In this context, Argentina, Bolivia, Chile, Ecuador, and Peru again, rank in the top half of the twenty nation sample of Latin American countries. (See: Table 3). Argentina is at the top; Peru and Chile stand between Argentina and Ecuador and Bolivia. And, as with RSS/V, the gaps between these clusters of countries remain great. Moreover, even though Bolivia and Ecuador rank higher than the last nine countries, the difference in the number of points is not that great. In reality, Ecuador and Bolivia are part of the large cluster of the lowest ranking thirteen nations which cannot be said to have as much in relative military strength as in vulnerability. On the other hand, despite Argentina's second place ranking, Brazil is clearly the dominant military power in Latin America.

An examination of the specific variables that make-up the RMC/V component points up the facts that (1) military manpower generally has increased; (2) airlift and sealift capacity has been enhanced--particularly in Brazil, Mexico, Colombia, Peru, and Venezuela; and, (3) the growth of domestic defense industries--especially in Brazil and Argentina--are becoming more important throughout the Hemisphere. AEX is probably the key to any emerging military capability in that: (1) it can make a positive contribution to the qualitative strength of a given armed force through reequipping, modernization, and standardization; (2) it would provide greater independence from any other former supplier or set of suppliers; and, (3) through the sale of excess production abroad a generally more healthy economy could result.

Despite the general increase of RMC/V in Latin America and among the Andean states, (See: Chart 2), the military forces of these nations have remained defensive in nature and oriented primarily toward counter-insurgency operations. The exceptions to this trend are Brazil, Argentina, and Peru. The acquisition patterns of these countries suggest a substantially increased offensive capability. Nevertheless, as the DEP variable indicated in the preliminary study, Latin American nations are spending a lower percentage of their Gross National Product on the military and arms purchases than any other area in the world. For example, Brazil's total military expenditures for 1978 were 1.0 per cent of GNP. Only Japan (0.9 per cent) and Mexico (0.5 per cent) were spending less.⁴⁰ In these terms, insufficient funds imply deficiencies in training, supplies, facilities, and equipment maintenance. This severely reduces relative military capability, and limits the probability of any large-scale conflict in Latin America.

Relative Trade Vulnerability (RTV). This principal component is composed of three variables (EXP, IMP, and DDP) which indicate the strength against or vulnerability to foreign manipulation, control, or disruption of given economy. If these actions are intentional and organized, they could very well contribute to the preconditions for conflict in a target society. To measure this kind of economic dependency, we use the value of exports and the value of imports as a percentage of Gross Domestic Product. We also use debt dependence per capita. The greater a country's proportion of imports and exports to GDP, and the more dependent it is on foreign credit, the more its economic activities are dependent on actions in the external market for its production activities causes an increase in the degree of income inequality in a society.⁴¹ Thus, the relative deprevation

that causes men to rebel is enhanced.⁴²

In order to be consistent with the military and political components, this analysis measures the relative capability to influence the preconditions for political violence, as well as the relative ability to counter these influences. Consequently, the higher the RTV score, the greater this capability. The lower the score the more vulnerable.

Argentina, again, heads the list of Andean countries. (See: Table 4). Peru, Chile, Ecuador, and Bolivia cluster just below the relative economic giants-- Argentina, Brazil, and Mexico. Unlike the military component, the RTV scores place Ecuador and Bolivia somewhat above the cluster of countries with the lowest scores. This suggests some relative diversification of products, crops, and external markets; and, a bit less dependence on foreign credit. Argentina is the exception to this trend. The longitudinal analysis makes it apparent that Argentina is declining in this kind of economic strength; and, that Peru, Chile, Ecuador, and Bolivia are rapidly converging on the Argentine position. (See: Chart 3).

Generally, a similar pattern holds for the other Latin American states. Those nations which ranked eight through twenty (except Guatemala) increased their relative trade strength while those ranked one through seven (including Mexico, Brazil, and Argentina) increased their relative trade vulnerability. The dependence on an export economy and substantial amounts of foreign credit may do great things quickly for overall GNP, but the implications for income inequality and the extension of external leverage over a state portend significant internal security problems for the long run.

External Penetration (EPN). Three indicators compose this component of analysis--

BMC, INR, and MED. They also measure relative strength or vulnerability to destructive external economic actions. However, instead of being concerned with the external market, this factor deals with external penetration of a given national economy. Bilateral and multilateral aid as a per cent of GDP (BML) reflect a level of internal dependence on external actors for general economic well-being or development. The more foreign reserves a country possesses (INR), the more it is able to obtain needed resources from other states without incurring a constraining external debt. Moreover, the more international reserves, the more independent a state's economic and political actions in the international system. Thirdly, a state's dependence on other nations for its capability to resist external and/or internal conflict is indicated by the total value of arms imports (MED). That is to say, the necessary equipment to conduct violence, spare parts to keep that equipment operable, and war reserves are controlled by a foreign actor to the extent that these things must be purchased abroad.

The type of dependence represented by these variables tends to: (1) reduce internal economic development; (2) make private or public economic planning more difficult; (3) links the interests of local elites to interests abroad; (4) increases income inequality; moreover, (5) foreign actors may obtain political leverage within a state and tend to form internal and external coalitions to repress the demands of the less powerful internal economic actors.⁴³ Clearly, the preconditions for internal conflict may be heightened.

Again, in order to be consistent with the other principal components, this part of the study measures the relative capability to influence the preconditions for internal conflict. Thus, the higher the EPN score, the greater the capability. More importantly, the lower the score, the more vulnerable.

In this context, again, Argentina scores near the top of the point scale, along with Brazil and Venezuela. (See: Table 5). These three countries compose one cluster and the other seventeen Latin American states comprise the only other cluster in the EPN component. Furthermore, the distance separating the two groups of nations is impressive. Also, Argentina, Brazil, and Venezuela are the only countries to have decreased their vulnerability to external penetration of their economies. The other seventeen states--including Mexico--increased that vulnerability. Although Argentina ranks at the top of the Andean group and third in the entire Latin American sample, Brazil stands out with a score of .169 as opposed to Venezuela and Argentina with .079 and .076 respectively.

An analysis of the specific indicators composing the EPN factor illustrates that: (1) Brazil and Venezuela have dramatically increased their international reserves; (2) that Brazil and Argentina have become considerably less dependent on foreign sources for armaments; and, (3) that all the other Latin American countries are generally more subject to the leverage of external actors in their internal affairs. This is illustrated clearly by the longitudinal analysis of the Andean countries. (See: Chart 4). The probability of internal conflict has, consequently, risen as the possibility of external manipulation of almost all the economies of Latin America has increased.

Relative Political Strength/Vulnerability (RPS/V). The use of the GRP indicator as an important dimension of political capability that Knorr calls putative power is based on a notion suggested by him and more fully developed by Cline, and Organski and Kugler.⁴⁴ They argue that recent important miscalculations in determining a comprehensive estimate of the military capability of nations have been the result of the failure to take into account the idea of will to fight.

Organski asserts that will, per se, is not the vital difference that allows one nation-state to prevail over another in international conflict. Rather, it is the capacity to effectively penetrate a society and extract resources from it. The better a government can perform in extracting resources from a society, the more successful it is in penetrating and controlling it. The better the control, the better the capability to fulfill tasks imposed by international environment and to generate a will to sustain a conflict. Thus, GRP suggest a level of capability to administer, coordinate, and sustain political, economic and military goals across the conflict spectrum in the contemporary world.

On this factor the Andean group range across the entire spectrum of the twenty countries examined. (See: Table 6). Chile heads the list. Argentina brings up the rear; and, Peru, Ecuador, and Bolivia tend toward the middle of the Latin American community. Argentina's position at the bottom of the list suggests something of its decline in the RMC/C and RTV components, and its general decline as indicated by the overall weighted measure of RSS/V. Chile's clear dominance in this component indicates something of its ability to survive and even prosper in the aftermath of the coup that deposed the Allende government and the subsequent international isolation brought on by various human rights violations.

Examination of the trends during the 1968-1978 time frame show some cause for concern. A majority of the twenty countries analyzed have lost RPS/V points. Ecuador is the only Andean country to have increased its capability in this important area. (See: Chart 5). This analysis suggests at least three things: (1) the capability to control their own societies has been reduced in most of the Andean and other Latin American states; (2) the general vulnerability to systemic external aggression of any kind has been increased; and, (3) in that many of these

countries do not have their so-called "act" together, the probability of using an external dispute as a means to divert popular attention from internal problems becomes greater.

Recapitulation. The principal components and their indicator-variables discussed above examine and measure the relative political, military, and economic position of five Andean nations and fifteen other Latin American states. This is done at a macro level. The findings of the study suggest several things which have their implications for policy.

First, the Andean countries (Argentina, Bolivia, Chile, Ecuador, and Peru) are very diverse. Outside their geographic location, they do not tend to stand out as any kind of special or different group of Latin American countries. That is to say, these five countries tend to relate more closely to other Latin American states--in terms of the variables examined--than to the so-called Andean group. These countries tend to cluster into three groups--Argentina, by itself, at the top of virtually every list; Chile and Peru in the middle; and, Ecuador and Bolivia at the bottom of the scale.

Second, the one thing that does set the Andean nations apart from the rest of Latin America is the fact that the potentially most volatile external disputes (the Beagle Channel, Marano, and Atacama Desert issues) are to be found in that part of the Hemisphere.

Third, the Andean countries, along with the rest of the Latin American sample, generally tend to be increasing their relative state strength. Thus, generally, they are diminishing their relative vulnerability to systemic aggression. However, even though general state strength has been increasing in Latin America, it is also comparatively low. On the basis of points scored, the twenty states cluster

into four groups which we have categorized as: (1) least vulnerable; (2) vulnerable; (3) very vulnerable; and (4) likely targets for systemic aggression of some kind. (See: Table 7).

Fourth, in terms of the principal components of the analysis, it appears that: (1) there has been a general increase in military capability with a seeming emphasis on internal security matters--Argentina, Brazil, and Peru are exceptions to the generalization in that they have been acquiring large amounts of equipment which can be defined as offensive rather than defensive in nature; (2) there has been a general decrease in trade vulnerability--Argentina, Brazil, and Mexico being the notable exceptions in this case; (3) increasing external penetration of the various economies appears to rule rather than the exception, except, again, in the Argentine, Brazilian, and Venezuelan instances; and, (4) relative political strength is the only factor of the four analyzed in which there is no clear trend--about half the sample have increased their vulnerability in this regard and about half have increased this type of strength.

Fifth, the disputes that have been suggested to be the most likely to break out into open conflict involve countries with generally uneven state strength. Chile (65) would be no match for Argentina (176) if the Beagle Channel were to develop into armed hostilities. Peru (55) could easily exploit a confrontation with Ecuador (13) over the Marañon region. Normally, this kind of situation portends conflict; and, the dispute is resolved in favor of the strongest.⁴⁵ However, since this has not happened. The implication is that there is a perceived regional or international balancer or set of balancers involved. The Atacama Desert Dispute which involves Bolivia, Chile, and Peru is one in which the major protagonists--Chile (65) and Peru (55)--are fairly evenly matched in total political, economic,

and military strength. Bolivia (5) could not enhance Peruvian power enough to be decisive. Nevertheless, this kind of situation also portends conflict. A miscalculation or some irrationality on the part of one government or another could easily resurrect the War of the Pacific. This has not happened either. Again, given the strong feelings involved on all sides, one must credit a perceived balancer or set of balancers for keeping the conflict primarily confined to rhetoric.

Sixth, in the past the United States has acted as the ultimate artitor between conflicting Latin American states. However, in the past ten years Brazil has emerged as an entity which has the capability to exercise a regional balance of power. Clearly, the Andean countries as a group and the individual states that comprise that region do not exist in a vacuum. The possibilities of cross-cutting and changing alliances exist. However, the logic of the situation argues strongly in favor of some sort of "balancer." Again, in the Latin American context, that balancer has got to be Brazil.

Seventh, and finally, comparatively high political, economic, and military vulnerability--coupled with several active disputes in the Andean region of Latin America--suggest a considerable potential for systemic military aggression. At the same time--less obviously, but probably more importantly--there is considerable potential for systemic economic aggression. Even so, the possibilities within Latin America are limited. The various countries--to include the Andean states--do not have a large commercial intercourse with each other. Brazil has begun a relatively heavy involvement in Bolivia; and, Venezuela is known to have played an important economic role in the recent Nicaraguan Revolution. Conceivably, Argentina has a similar capability for economic aggression. However, if another

Latin American or Andean nation were to get involved in any kind of systemic economic aggression, it would most likely be with considerable aid from an actor from outside the region.⁴⁶

It appears to us that what we have suggested above conforms to the present realities of power in the world and in Latin America.

RECOMMENDATIONS

The results of the change that has been demonstrated in the empirical portion of this paper is a new dynamism for Latin America. The trends that have been established over the past few years suggest that over the next decade there will be a continuing general growth of stronger and more effective military establishments, economies, and governments. In the context of multipolarity and interdependence there is likely to be: (1) a growing competition for resources, and the resurgence of traditional rivalries and border tensions; (2) a general frustration with the inability to influence anyone significantly through the use of economic or political pressures; (3) a resulting increase in the credibility of the idea of military--even nuclear--power as the guarantor of influence in the regional and international systems; and, (4) a loosening of ties to United States policy preferences. Moreover, as the strategic importance of Latin America becomes more and more obvious, outside actors are likely to take a more active role in exploiting the vulnerabilities of the area to their own ends. This, in turn, could lead to: (1) heightened instability; (2) leftist insurgency triumphs; and/or, (3) some sort of low-intensity warfare in likely target countries within the United States southern security zone.

Under these circumstances, it is imperative than an environment conducive to

working out common objectives and problems be established between the United States and the various Latin American states. That is to say, the United States must be prepared to articulate its security interests more broadly and accommodate Latin American concepts of security. A number of recommendations are possible.

Spelling out in detail how the United States should go about dealing with its security concerns in Latin America would require another, longer, paper; but, three key principles may be suggested.

First, the various Latin American states are diverse and cannot be treated alike under any "special relationship." We should, thus, recognize that our relations with the countries of the Hemisphere are not of equal priority. The concepts for defining the overall stance toward the rest of the Americas are what have been called "internationalism and community."⁴⁷ In practice this means analyzing how the interests and objectives of the community differ among themselves; how they relate to United States interests; how we go about achieving common goals; and, establish the necessary programs to implement those goals. The United States ought to establish special priority to improving its understanding of and relations with three overlapping sets of countries: (1) those where US economic and security interests are concentrated; (2) those likely to exert significant influence in regional and international forums; and, (3) those most closely tied to the United States by patterns of migration.

Second, the Latin Americans are equating social integration and economic development with national security. Therefore, in dealing with the various republics, the United States should be concerned with the shared problems of economic security and of improving individual and collective welfare. Putting this principle into practice means accepting the fact that the days of strictly military solutions

to security problems are gone. It means that appropriate responses must be made to situations before they reach crisis proportions. It also means that a whole new set of institutions must be established to: (1) develop meaningful dialogue on substantive issues of Inter-American security in its broadest sense; (2) deal effectively with and promote cooperative approaches to systemic aggression of any kind; and, (3) to enhance political cooperation. Finally, it means that moribund institutions along with policies based on value preferences rather than long-term national interests be given an appropriate burial.

Third, the various Latin American countries--from Cuba to Argentina--no longer accept the notion that the United States bears the sole, and overriding, hemispheric defense responsibility. Moreover, as stated above, the security perceptions of all the nations of the Hemisphere include internal fears which have been generally ignored by the United States. The expansion and modernization of most of the armed forces in Latin America is evidence of a lack of confidence in United States interest or ability to support them in event of widespread, regional, bilateral, or internal conflict. It is also evidence that the nations of the area perceive greater roles for themselves within the region and in the international arena. Argentina, Brazil, Cuba, Venezuela, and to a certain extent, Chile, have been involving themselves outside their own frontiers. Brazil, especially, already perceives a much larger role for itself in Latin America and the world. What is more, Brazil has the capability to take that role whether or not the United States is prepared to accept it.

The United States must face these realities. In doing so, it should begin to explore the possibility of creating a new mechanism for joint consultation on common security problems. For example, if the commerce in oil, strategic minerals, and

other goods through the South Atlantic, the Atlantic Narrows, and the Caribbean to the United States and Western Europe is as significant as it appears, someone must assume responsibility for safeguarding those lines of communication. Consultation would be a reasonable starting point. Beyond that one fundamental move, the United States should declare and demonstrate a firm commitment to the America south of the Rio Grande. The United States should also actively encourage the other powers of the Hemisphere to assume a finite and stable share of the security vacuum.

The application of these principles with common sense and some flexibility should lead to a stronger United States presence in Latin America and the further strengthening of regional economic, political, and military forces. The equilibrium generated would work to discourage any kind of systemic aggression from within or without the Hemisphere.

1. Stanley Hoffman, "Notes on the Elusiveness of Modern Power," International Journal, (Vol. XXX), Spring, 1975, pp. 183-206.
2. Klaus Knorr, "On the International Uses of Military Force in the Contemporary World," Orbis, (Vol. 21, No. 1), Spring, 1977, pp. 5-27.
3. Klaus Knorr, "Is International Coercion Waning or Rising," International Security, (Vol. I), Spring, 1977, pp. 92-110.
4. See for example: Wayne H. Ferris, The Power Capabilities of Nations, (Lexington, MA: D.C. Heath and Co., 1973), pp. 37-54; Ray S. Cline, World Power Assessment: A Calculus of Strategic Drift, (Washington, D.C: Georgetown University Center for Strategic and International Studies), 1975; A.F.K. Organski and Jacek Kugler, "Davids and Goliaths: Predicting the Outcomes of International Wars," Comparative Political Studies, (Vol. 11, No. 2), July, 1978, pp. 141-181; Klaus Knorr, The Power of Nations, (New York: Basic Books), 1975; Klaus Knorr, Military Power and Potential, (Lexington, MA: D.C. Heath and Co.), 1970; K. Heiss, K. Knorr, and O. Morgenstern, Long-Term Projections of Political and Military Power, (Princeton, NJ: Mathematica, Inc.), 1973; Bruce Russett, (ed.), Peace, War and Numbers, (Beverly Hills, CA: Sage Publications), 1972.
5. Rejni Kothari, "Sources of Conflict in the 1980s," in The Diffusion of Power: Conflict and Its Control, (London: Adelphi Papers of the IISS, 1977), pp. 2-6.
6. Samuel P. Huntington, "Interdependence, National Security and the Either/Or Trap," in National War College Proceedings, July 14-14, 1975, pp. 12-17.
7. Luigi Einaudi and David Ronfeldt, "Prospects for Violence," in Latin America Takes Charge of Its Future, (New York: Crane, Russak & Co., Inc., 1974), pp. 39-43.
8. Cline, op. cit.
9. Ivo K. Feirabend with Rosalind L. Reirabend and Betty A. Nesvold, "The Comparative Study of Revolution and Violence," Comparative Politics, (April, 1973), pp. 393-424.
10. Herold R. Kerbo, "Foreign Involvement in the Preconditions for Political Violence," Journal of Conflict Resolution, (Vol. 22, No. 3), September, 1978, pp. 363-391.
11. Steven Jackson, Bruce Russett, Duncan Snidal, and David Sylvan, "Conflict and Coersion in Dependent States," Journal of Conflict Resolution, (Vol. 22, No. 4), December, 1978, pp. 627-657.

12. These variables are: Critical Mass (population and area), Economic Capability, Military Capability, Strategic Purpose, and Will to Pursue National Strategy. Another list of a few of these indicators would include: Quality and Quantity of Supplies, Equipment and Training, Civil and Military Transportation and Communications Facilities; Morale; Population; Raw Materials; GNP; Industrial Capacity; Technical and Administrative Skills; Tax Revenue; Capability of an Intelligence Service; Ease of Making and Implementing Governmental Decisions; Generalship; and, Military Reputation.

13. These sixteen variables are Armed Forces Manpower; Total Defense Expenditure; Defense Expenditure per Capita; Defense Expenditure as a Percent of GNP; Arms Exports; GNP; Territorial Area; Population; Total Foreign Trade; Merchant Marine; Domestic Airlines; Theoretical Capability to Produce 20 KT Nuclear Bombs; Government Revenue; Government Revenue per Capita; and, Military Reputation.

14. Klaus Knorr, "Notes on the Analysis of National Capabilities," in J. Rosenau, V. Davis, and M. East, (eds), The Analysis of International Politics: Essays in Honor of Harold and Margaret Sprout, (New York: The Free Press), 1972.

15. See those discussed by: Richard Robinson, "The World Economy and the Distribution of Income within States: A Cross-National Study," American Sociological Review, (Vol. 41), August, 1976, pp. 638-659; and, Christopher Chase-Dunn, "The Effects of International Economic Dependence on Development and Inequality: A Cross-National Study," American Sociological Review, (Vol. 40), December, 1975, pp. 720-738.

16. Ibid.

17. Robinson, op. cit., pp. 649-650.

18. Organski and Kugler, op. cit., p. 175.

19. It is assumed that variables that correlate highest (load high) with a given factor are more important than those that load lower as determinants of the phenomenon in question.

20. Leonard A. Alne, former Director for Foreign Military Sales, DOD, Senate Foreign Relations Committee, Foreign Assistance Authorization--Arms Sales Issues, 94th Congress, 1st Session, June-December, 1975, p. 67.

21. Kenneth Nolde, Arms and Security in South America: Toward an Alternate View, unpublished doctoral dissertation, University of Miami, 1980, pp. 393-394.

22. Jack Child, "Peace-keeping and the Inter-American System," unpublished manuscript, dated 28 Feb 1980, pp. 2-3.

23. Nolde, op. cit., pp. 285-287.

24. Steven M. Gorman, "Present Threats to Peace in South America," Inter-American Economic Affairs, (Summer, 1979), pp. 51-71; and, Jorge I. Dominguez, Ghosts from the Past: Territorial and Boundary Disputes in Mainland Central and South America, Harvard University, unpublished manuscript, June 1979.
25. Nolde, op. cit., Table V.
26. O Estado de Sao Paulo, July 17, 1979, p. 5; and, Journal do Brasil, July 13, 1979, p. 6.
27. See for example: Max G. Manwaring, "Brazilian Military Power: A Capability Analysis," in Wayne A. Selcer, (ed.), Brazil in the International System, (Boulder, CO: The Westview Press), 1980.
28. For a well articulated Argentine view of the problem see: Juan Ramon Munoz Grande, "Argentina: Objecto organico del Ejercito para el largo plazo," Estrategia, (No. 60), September-October, 1979.
29. Kenneth Nolde, Arms, Arms Manufacture, and Arms Limitations in Latin America, unpublished manuscript, dated May 1980.
30. The Evolving Strategic Environment, (Carlisle Barracks, PA: U.S. Army War College), p. 17.
31. On this complicated issue see: William L. Krieg, Legacy of the War of the Pacific, U.S. Department of State, External Research Program, October, 1974.
32. Bolivia ceded its access to the sea (the Atacama Desert) to Chile for the duration of the truce.
33. A short but good account of the problem may be found in the Area Handbook for Ecuador, (Washington, D.C: FAS of the American University, 1973), pp. 222-227; also, see Gorman, op. cit.
34. World Military Expenditures and Arms Transfers, 1966-1977, (Washington, D.C.: USACDC, 1978), pp. 113-152.
35. An interesting study which illustrates this point very well is that of Chile. See: Kirbo, op. cit.
36. These countries would include: Argentina, Brazil, Peru, and Venezuela.
37. Sources for the Table and Charts: World Tables, 1976, (Baltimore, MD: The John Hopkins University Press for the World Bank), 1976; Balance of Payments Yearbook, (Washington, D.C.: International Monetary Fund), 1979; World Military Expenditures and Arms Transfers, 1966-1977, (Washington, D.C.: USACDC), 1978; World Statistics in Brief, (3rd Ed.), (New York: United Nations Organization), 1978; Statistical Yearbook, 1978, (New York: United Nations Organization), 1979; Statistical Bulletin of the OAS, (Vol. 1, No. 4). Gneral Secretariat: Washington, D.C), October-December 1979; and, The Military Balance, 1979-1980, (London: IISS), 1979.

38. International actors are no longer confined to nation-states. Multi-national corporations; international organizations such as OPEC and the Non-Aligned Nations of the World; and, organizations such as the PLO or the Japanese Red Army qualify as ACTORS in the contemporary world arena.

39. World Military Expenditures and Arms Transfers. 1968-1977, op. cit.

40. The Military Balance, 1979-1980, op. cit., p. 95.

41. Robinson, op. cit., p. 655.

42. Ted R. Gurr, Why Men Rebel, (Princeton, NJ: Princeton University Press), 1970.

43. Chase-Dunn, op. cit., pp. 723-724.

44. Cline; and, Organski and Kugler, op. cit.

45. Jorge Dominguez argues that objectively weaker South American states initiate conflict to extract redress and benefits, while objectively stronger than South American states compromise for larger political and economic objective; op. cit.

46. An obvious example would be Cuba and the Soviet Union.

47. David Ronfeldt, Richard Nehring, and Arturo Gandara, Mexico's Petroleum and U.S. Policy: Implications for the 1980s, (Santa Monica, CA: The Rand Corporation), June 1980.

APPENDIX 1: TABLES AND CHARTS

TABLE 1
General Ranking of 20-nation Latin American Sample

44

Rank	Country	1968 P_{RSS}/V_w	Rank	Country	1978 P_{RSS}/V_w
1	BRAZIL	257.731	1	BRAZIL	2,206.317
2	ARGENTINA	224.865	2	VENEZUELA	180.098
3	MEXICO	149.576	3	ARGENTINA	175.611
4	VENEZUELA	55.801	4	CHILE	65.133
5	CHILE	47.895	5	PERU	55.248
6	COLOMBIA	47.219	6	COLOMBIA	43.222
7	PERU	24.978	7	URUGUAY	15.834
8	URUGUAY	22.015	8	MEXICO	13.897
9	ECUADOR	6.306	9	ECUADOR	12.752
10	DOM REPUBLIC	4.650	10	BOLIVIA	5.375
11	PANAMA	3.341	11	JAMAICA	4.873
12	PARAGUAY	3.027	12	HONDURAS	3.112
13	HONDURAS	2.538	13	DOM REPUBLIC	3.053
14	GUATEMALA	2.221	14	GUATEMALA	2.924
15	COSTA RICA	2.138	15	PANAMA	1.983
16	BOLIVIA	2.030	16	PARAGUAY	1.865
17	HAITI	1.920	17	COSTA RICA	1.308
18	JAMAICA	1.624	18	EL SALVADOR	1.190
19	EL SALVADOR	.358	19	HAITI	.459
20	GUYANA	.231	20	GUYANA	.389

Source: Endnote Number 37.

TABLE 2
General Increase and Decrease in Capability/Vulnerability

45

<u>Country</u>	<u>1968 P_{RSS}/V_w</u>	<u>1977 P_{RSS}/V_w</u>
ARGENTINA	225	176
MEXICO	149	13
COLOMBIA	47	43
URUGUAY	22	15
DOM REPUBLIC	5	3
PANAMA	3	2
PARAGUAY	3	1
COSTA RICA	2	1
HAITI	2	.5

Those which have increased capability and decreased vulnerability:

BRAZIL	258	2,206
VENEZUELA	55	180
CHILE	48	65
PERU	25	55
ECUADOR	6	13
HONDURAS	2.5	3
GUATEMALA	2	3
BOLIVIA	2	5
JAMAICA	2	5
SALVADOR	.3	1.1
GUYANA	.2	.3

TABLE 3
Relative Military Capability/Vulnerability

46

<u>Rank</u>	<u>Country</u>	<u>1968 P_{RMC}/V_w</u>	<u>1977 P_{RMC}/V_w</u>
1	BRAZIL	.214	.534
2	ARGENTINA	.143	.111
3	MEXICO	.087	.094
4	COLOMBIA	.068	.046
5	PERU	.045	.049
6	CHILE	.042	.038
7	VENEZUELA	.042	.056
8	URUGUAY	.013	.013
9	ECUADOR	.012	.014
10	HONDURAS	.009	.007
11	BOLIVIA	.008	.010
12	PANAMA	.006	.004
13	COSTA RICA	.005	.002
14	DOM REPUBLIC	.005	.004
15	GUATEMALA	.005	.004
16	PARAGUAY	.005	.003
17	JAMAICA	.004	.004
18	HAITI	.003	.001
19	EL SALVADOR	.001	.002
20	GUYANA	.001	.001

TABLE 4
Relative Trade Vulnerability

47

Rank	Country	1968 $PRTV_w$	1977 $PRTV_w$
1	URUGUAY	.098	.058
2	MEXICO	.094	.066
3	BRAZIL	.093	.062
4	ARGENTINA	.091	.064
5	COLOMBIA	.062	.058
6	HAITI	.062	.054
7	DOM REPUBLIC	.060	.053
8	PARAGUAY	.056	.060
9	ECUADOR	.047	.051
10	GUATEMALA	.047	.030
11	CHILE	.043	.053
12	PANAMA	.040	.051
13	PERU	.033	.055
14	COSTA RICA	.033	.048
15	EL SALVADOR	.032	.034
16	BOLIVIA	.029	.051
17	VENEZUELA	.026	.041
18	HONDURAS	.024	.031
19	JAMAICA	.020	.048
20	GUYANA	.013	.017

TABLE 5
Relative External Penetration of Economies

48

<u>Rank</u>	<u>Country</u>	<u>1968 P_{EPN_w}</u>	<u>1977 P_{EPN_w}</u>
1	VENEZUELA	.073	.079
2	ARGENTINA	.064	.076
3	MEXICO	.059	.029
4	BRAZIL	.037	.169
5	CHILE	.034	.020
6	COLOMBIA	.032	.030
7	URUGUAY	.032	.019
8	PERU	.029	.019
9	JAMAICA	.029	.017
10	GUATEMALA	.027	.021
11	ECUADOR	.026	.021
12	EL SALVADOR	.026	.018
13	BOLIVIA	.025	.018
14	DOM REPUBLIC	.025	.017
15	HONDURAS	.025	.017
16	GUYANA	.024	.016
17	HAITI	.024	.016
18	COSTA RICA	.024	.017
19	PANAMA	.024	.017
20	PARAGUAY	.023	.018

TABLE 6
Relative Political Strength/Vulnerability

49

<u>Rank</u>	<u>Country</u>	<u>1968 P_{RPS/V_w}</u>	<u>1977 P_{RPS/V_w}</u>
1	CHILE	.078	.077
2	GUYANA	.074	.088
3	VENEZUELA	.070	.074
4	JAMAICA	.070	.094
5	DOM REPUBLIC	.062	.040
6	PANAMA	.058	.054
7	PERU	.058	.050
8	COSTA RICA	.054	.047
9	URUGUAY	.054	.050
10	HONDURAS	.047	.057
11	PARAGUAY	.047	.037
12	ECUADOR	.043	.047
13	EL SALVADOR	.043	.050
14	HAITI	.043	.034
15	BOLIVIA	.035	.034
16	BRAZIL	.035	.034
17	COLOMBIA	.035	.030
18	GUATEMALA	.035	.037
19	MEXICO	.031	.040
20	ARGENTINA	.027	.024

TABLE 7
General Vulnerability to Systemic Aggression in Latin America

<u>Country</u>	<u>RSS/V Points</u>	<u>Category</u>
BRAZIL	2,206	Least Vulnerable
VENEZUELA	180	Vulnerable
<u>ARGENTINA</u>	176	"
CHILE	65	Very Vulnerable
<u>PERU</u>	55	"
<u>COLOMBIA</u>	43	"
URUGUAY	16	Likely Targets for Systemic Aggression
MEXICO	14	
<u>ECUADOR</u>	13	
BOLIVIA	5	
JAMAICA	5	"
HONDURAS	3	"
DOM REPUBLIC	3	"
GUATEMALA	3	"
PANAMA	2	"
PARAGUAY	2	"
COSTA RICA	1	"
EL SALVADOR	1	"
HAITI	.5	"
GUYANA	.5	"

CHART 1

P_{RSS}/V_w

51

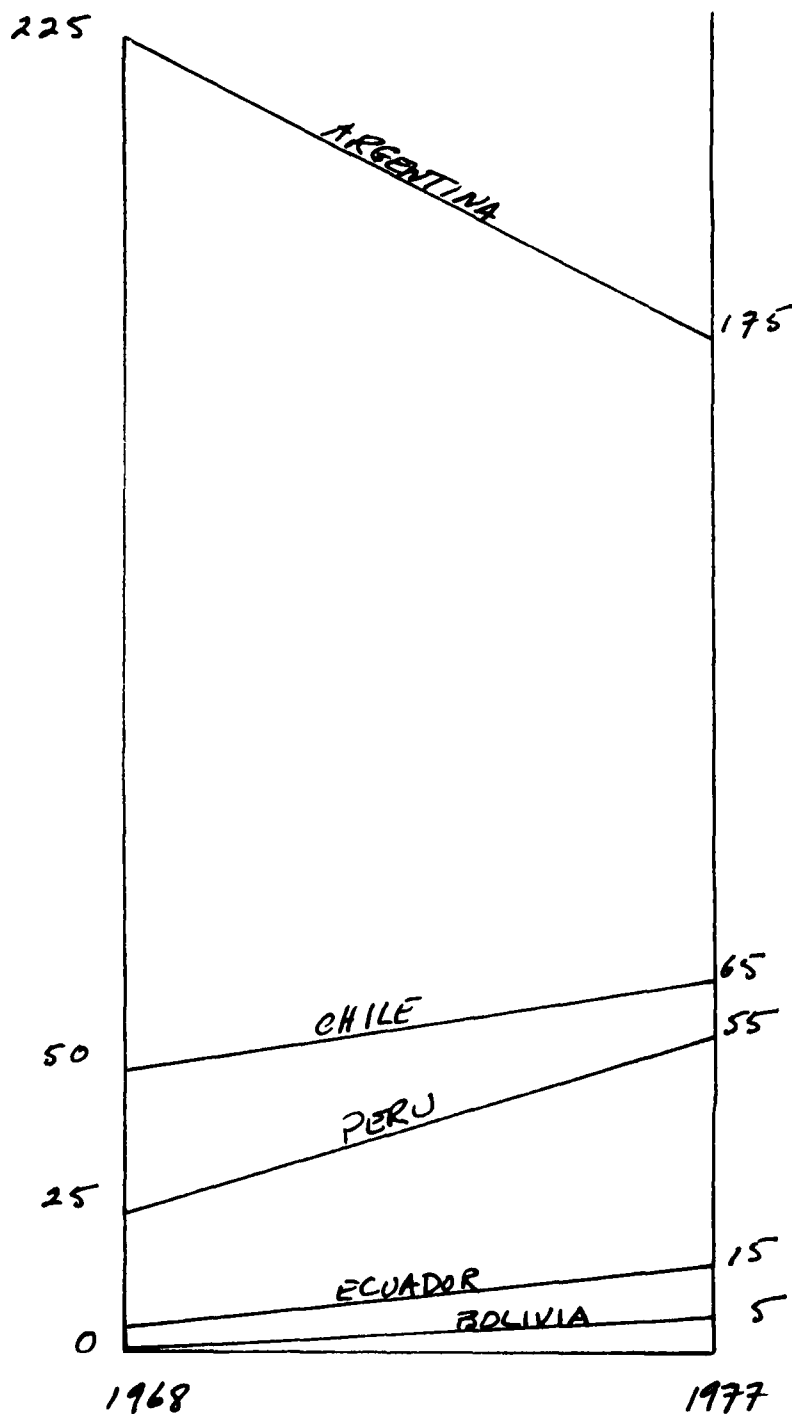


CHART 2

'R/MC/V_w

52

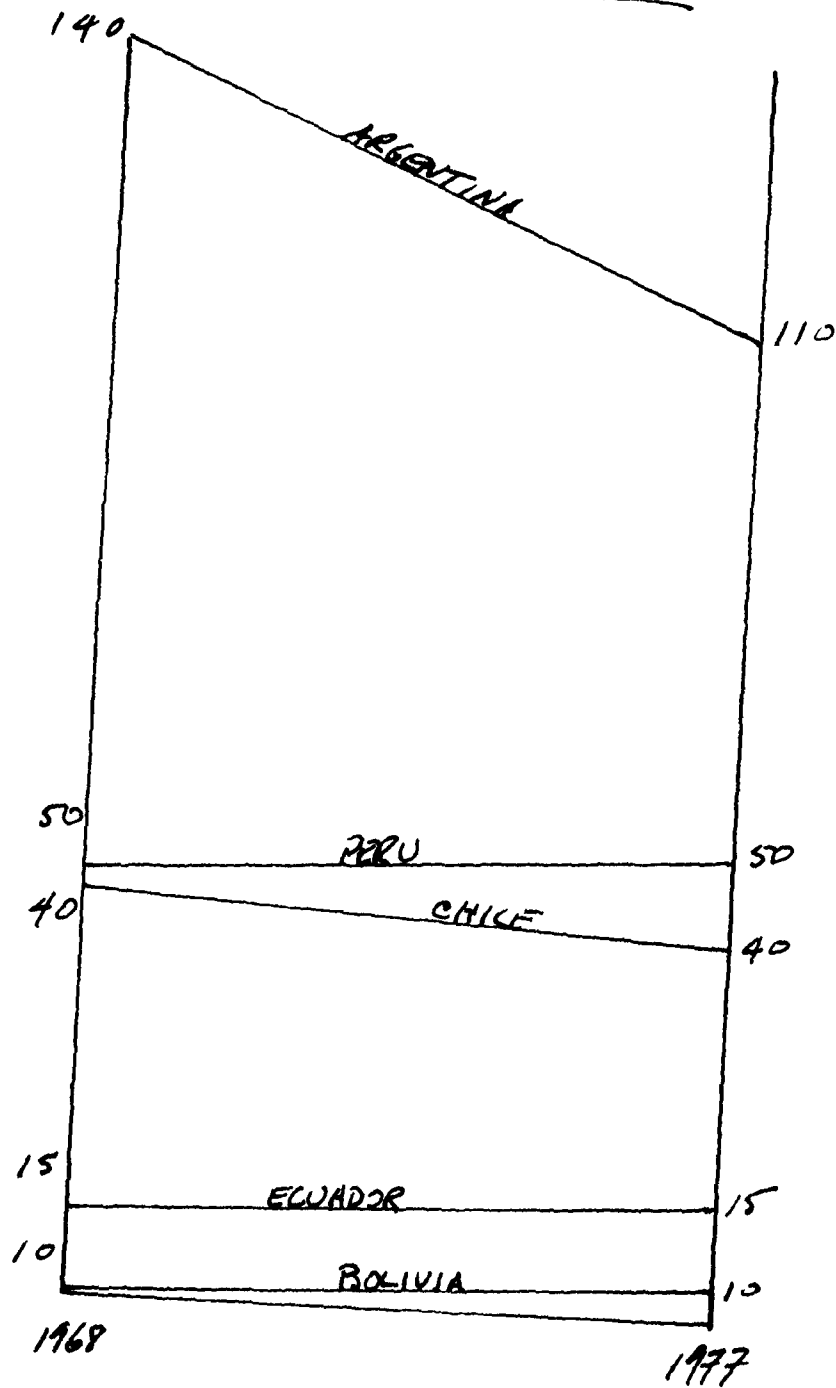


CHART 3

53

^pRTV_w

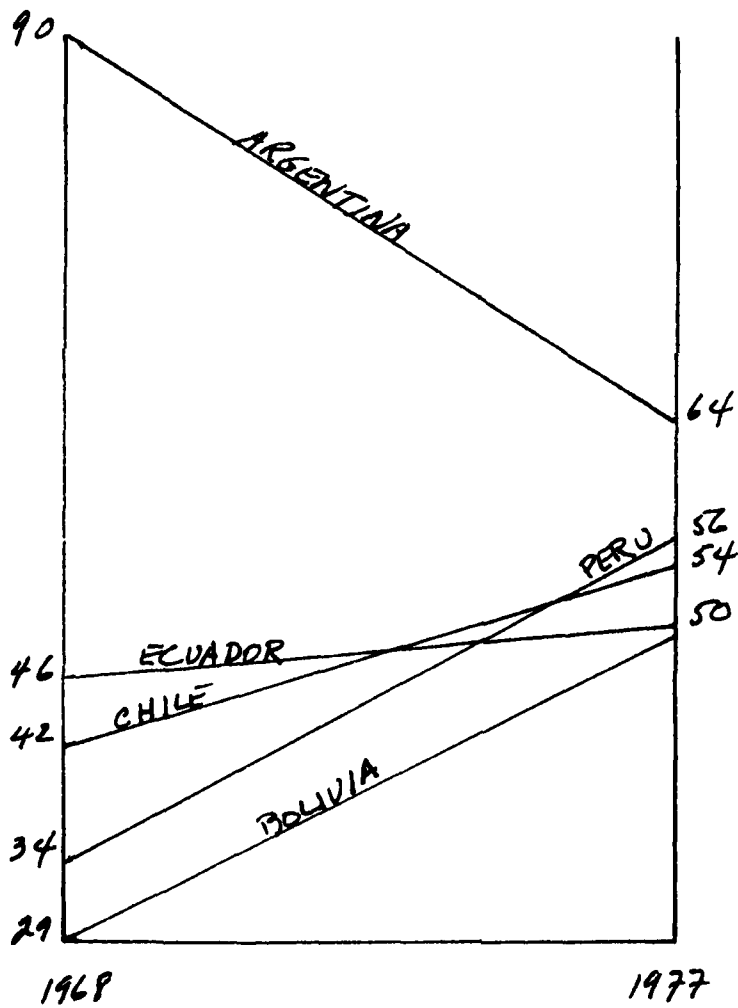


CHART 4

'EPN

54

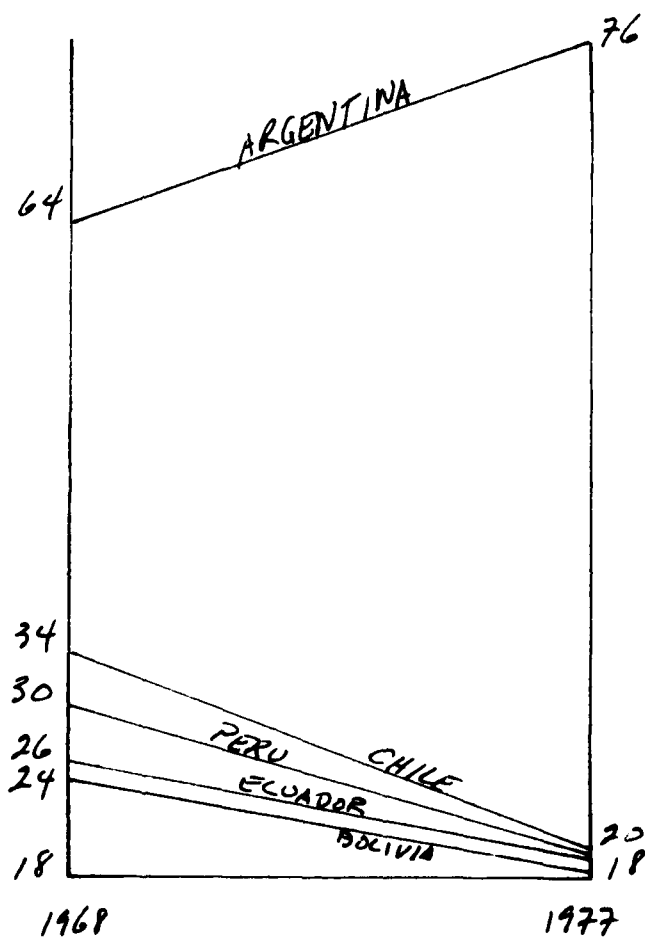


CHART 5

GRP

55

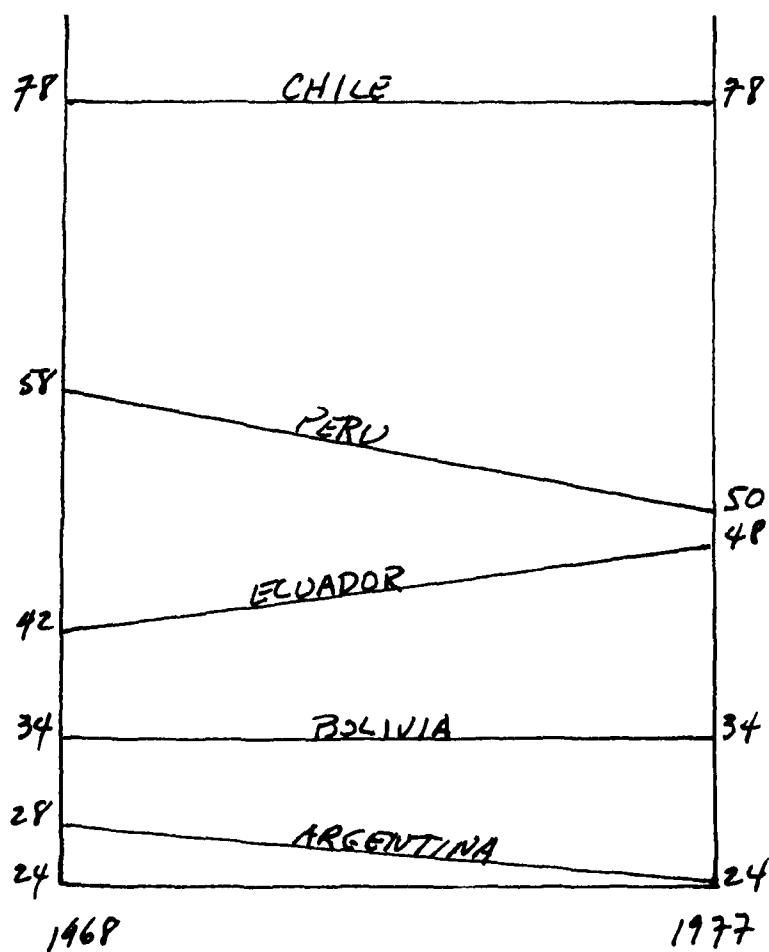


CHART X

P_{RSS}/V_w

56

